UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,938	12/15/2003	Joseph John Fatula JR.	SJ0920030067US1	3722

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EXAMINER
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ART UNIT	PAPER NUMBER
2441	

NOTIFICATION DATE	DELIVERY MODE
04/15/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@kunzlerip.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2011*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,20-24 and 26-35* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,20-24 and 26-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/15/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.

        Applicant's submission filed on April 1st, 2011, has been entered.

2.   Claims 1, 3-9, 20-24, and 26-35 have been presented for examination and are

rejected.

Response to Arguments

3.   Applicant's arguments filed April 1st, 2011 with respect to the claims have been

considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 3-9, 20-24, and 26-35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chase et al. ("Dynamic virtual clusters in a grid site manager") and

Gopalan et al. (U.S. PGPub 2003/0208523).

6.   As per claims 1, 20, 24, and 30, Chase teaches an autonomic management

apparatus for autonomic management of system resources on a grid computing system,

(Chase, abstract and overview sections)

        the apparatus comprising:

        a monitor module configured to monitor the grid computing system for a

predictive trigger event comprising an anticipated change in data flow based on

collected historical information; (Chase, section 3.2, see monitoring performed by virtual

cluster management module)

        a policy module configured to access one of a plurality of system policies, each

of the plurality of system policies corresponding to an operational control parameter of a

system resource of the grid computing system; and a regulation module configured to

autonomically regulate the system resource in response to the anticipated change in the

data flow (Chase, section 4, see e.g., autonomic regulation via the resize function that

applies policies to allocate and reallocate system resources, where the functionality is

also performed based on a trigger event).

        Chase teaches the above, including monitoring for a trigger event and

autonomically regulating based on the event (see sections 3.2 and 4), however, Chase

is silent as to a predictive trigger comprising an anticipated change in data flow based

on collected historical information.

In a similar field of endeavor, Gopalan teaches a system for the autonomic

management of system resources on a grid computing system (see paragraphs 0002,

0019, and fig. 1 architecture). The system monitors data flow including collecting

historical information (see, e.g., overview paragraphs 0030-0033 and fig. C). The

system subsequently monitors for predictive trigger events comprising an anticipated

change in data flow based on historical information (paragraphs 0030, 0181, 0254,

0261, 0262; see also fig. C6 and claim 1 elements D, E, G, H). The system further

applies policies and takes actions based on the anticipated data flow changes (e.g., see

paragraphs 0279-0285) and fig. C8).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to have combined Chase and Gopalan to provide the framework of

Gopalan in the system of Chase, because Gopalan provides a method of successfully

loading a network to capacity including reducing monitor-data flow and enabling over-

subscription (Gopalan, see paragraph 0008). Doing so would further combine existing

systems (e.g., autonomic grid management systems) in known ways (e.g., software

modification) to yield predictable results.

7.   As per claims 2 and 25, Chase-Gopalan teaches the system further wherein the

trigger event comprises one of an initiation trigger event, a regulation trigger event, and

a prediction trigger event (Chase, section 4, see e.g., the resize functionality).

8.   As per claim 3, Chase-Gopalan teaches the system further wherein the

operational control parameter comprises a command to regulate the system resource

(Chase, section 4, see e.g., the resize functionality).

9.   As per claim 4, Chase-Gopalan teaches the system further wherein the system

resource comprises one of a client processor capacity, a client storage capacity, and a

client memory capacity allocated to the grid computing system (Chase, page 5, where

the resource comprises the ability to run an executable job).

10.   As per claims 5, 21, and 26, Chase-Gopalan teaches the system further wherein

the regulation module comprises a reservation module configured to reserve the system

resource for a grid system operation (Chase, overview, see, e.g., the resource

reservation of page 3).

11.   As per claims 6, 22, and 27, Chase-Gopalan teaches the system further wherein

the regulation module comprises a termination module configured to terminate a

reservation of a system resource for a grid system operation (Chase, page 6, e.g., the

priority based termination based on grid system operation; see also the termination in

live trace experiment in section 5.2).

12.   As per claims 7 and 28, Chase-Gopalan teaches the system further wherein the

regulation module comprises an arbitration module configured to arbitrate conflicting

grid system operations according to an arbitration policy (Chase, section 3.3 resource

negotiation module).

13.   As per claims 8 and 29, Chase-Gopalan teaches the system further wherein the

regulation module comprises a profile module configured to store a system resource

profile, the system resource profile identifying a system resource of a client, and the

system resource allocated by the client to the grid computing system (Chase, see

section 4 and 5.2 where resource profiles are maintained for all of the member client

nodes).

14.   As per claim 9, Chase-Gopalan teaches the system further wherein the plurality

of system policies further comprises at least one of a system regulation policy and a

system termination policy (Chase, section 4).

15.   As per claim 23, Chase teaches a method for autonomic management of grid

system resources on a grid computing system, (Chase, abstract and overview sections)

the method comprising:

monitoring the grid computing system for a trigger event, the trigger event

comprising one of an initiation trigger event, a regulation trigger event, and a prediction

trigger event comprising an anticipated change in data flow based on collected historical

information; (Chase, section 4, where the resource allocation is based on a trigger

event)

accessing one of a plurality of system policies, each of the plurality of system

policies corresponding to an operational control parameter of a system resource of the

grid computing system, the operational control parameter comprising a command to

regulate the system resource; autonomically regulating the system resource in response

to the anticipated change in the data (Chase, section 4, see e.g., operational control

parameters to regulate system resources based on a plurality of system policies)

storing a system resource profile, the system resource profile identifying a

system resource of a client, and the system resource allocated by the client to the grid

computing system (Chase, see section 4 and 5.2 where resource profiles are

maintained for all of the member client nodes).

Chase teaches the above, including monitoring for a trigger event and

autonomically regulating based on the event (see sections 3.2 and 4), however, Chase

is silent as to a predictive trigger comprising an anticipated change in data flow based

on collected historical information.

In a similar field of endeavor, Gopalan teaches a system for the autonomic

management of system resources on a grid computing system (see paragraphs 0002,

0019, and fig. 1 architecture). The system monitors data flow including collecting

historical information (see, e.g., overview paragraphs 0030-0033 and fig. C). The

system subsequently monitors for predictive trigger events comprising an anticipated

change in data flow based on historical information (paragraphs 0030, 0181, 0254,

0261, 0262; see also fig. C6 and claim 1 elements D, E, G, H). The system further applies policies and takes actions based on the anticipated data flow changes (e.g., see paragraphs 0279-0285) and fig. C8).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Chase and Gopalan to provide the framework of Gopalan in the system of Chase, because Gopalan provides a method of successfully loading a network to capacity including reducing monitor-data flow and enabling over-subscription (Gopalan, see paragraph 0008). Doing so would further combine existing systems (e.g., autonomic grid management systems) in known ways (e.g., software modification) to yield predictable results.

16.   As per claim 31, Chase-Gopalan teaches the system further wherein the system prediction policy is based on the collected historical information (Gopalan, see, e.g., paragraphs 0030, 0181, 0254, 0261, 0262; see also fig. C6 and claim 1 elements D, E, G, H)

17.   As per claim 32, Chase-Gopalan teaches the system further wherein the regulation module is further configured to predictively adjust the system resource according to the system prediction policy in anticipation of a typical resource usage (Gopalan, see, e.g., paragraphs 0030, 0181, 0254, 0261, 0262; see also fig. C6 and claim 1 elements D, E, G, H)

18.   As per claim 33, Chase-Gopalan teaches the system further comprising

predictively adjusting the system resource according to the system prediction policy in

anticipation of a typical resource usage, wherein the system prediction policy is based

on the collected historical information (Gopalan, see, e.g., paragraphs 0030, 0181,

0254, 0261, 0262; see also fig. C6 and claim 1 elements D, E, G, H).

19.   As per claim 34, Chase-Gopalan teaches the system further comprising adjusting

a fee assessed to a user of the grid computing system based on a change in the system

resource (Gopalan, see, e.g., discussion of paragraphs 0002, 0003, 0007, 0019, 0020,

and 0022).

20.   As per claim 35, Chase-Gopalan teaches the system further comprising blocking

a potential change in at least one of the system policies according to a threshold

corresponding with a subscription criteria (Gopalan, see, e.g., discussion of paragraphs

0002, 0003, 0007, 0019, 0020, and 0022).

Conclusion

21.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-

3889. The examiner can normally be reached on Monday-Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/NT/
Nicholas Taylor
Examiner
Art Unit 2441

/Larry Donaghue/
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